



Fact Sheet

7100 Defense Pentagon
Washington, DC 20301-7100

Advanced Technology

The Advanced Technology Directorate develops new system concepts and key components to ensure the Ballistic Missile Defense System (BMDS) keeps pace with the continually evolving ballistic missile threat. The advanced technology effort is focused on developing and demonstrating the next generations of technology that will give us the capability to intercept early in the battle space, execute a shoot-look-shoot tactic, force less effective deployment of counter-measures, minimize the potential impact of debris, and reduce the number of interceptors required to defeat a raid of in-bound interceptors.



- **BMDS Technology:** We invest in game changing weapon, sensor, command and control, battle management, and communication technology, focusing on harnessing University and Small Business Innovative Research.
- **Next Generation Aegis Missile:** We have begun concept definition and will invest in developing high performance interceptor components and exploiting existing technology to increase the BMDS effectiveness against high density raids and long range threats.
- **Enhanced Command, Control, Battle Management, and Communications:** We invest in developing the next generation command and control and battle management concepts and the enabling technology required to implement them.
- **Airborne Infrared Sensors:** Our efforts prove the capability of sensors on unmanned aerial vehicles, like Global Hawk and Reaper, to precisely track every missile in flight.
- **Directed Energy Research:** Our research hedges against future threats by investigating advanced laser concepts including diode pumped gas and solid state electric lasers, beam combining, lethality effects, beam control and propagation, modeling and simulation.
- **Precision Tracking Space System:** This next generation space sensor layer will accurately track every missile, transmitting fire-control quality data to our missile defense interceptors. We will use national laboratory expertise to develop and demonstrate Baseline Articles.
- **Producibility and Manufacturing:** Responsible to the Director, MDA, for BMDS-wide producibility and manufacturing risk assessment and mitigation. Supports the BMDS Elements by identifying and helping to mitigate risks impacting mission assurance, performance, schedule and cost.